

LISTING OF CLAIMS

1-17 (Canceled)

18. (Currently Amended) A photoresist having a micron or submicron linewidth variation when exposed to radiation having a wavelength of about 248 nm or less, comprising a polycyclic copolymer, a photoacid generator and a base having a molar concentration ratio in a range of about 0.2 to ~~about~~ less than 1 relative to the photoacid generator.

19. (Previously Presented) A photoresist composition, comprising
a photoresist polymer,
a photoacid generator, and
a base additive,

wherein the photoacid generator has a concentration of at least about 6 percent by weight and the base has a molar concentration ratio in a range of about 0.2 to 1.5 relative to the photoacid generator to buffer acid generated by the photoacid generator upon exposure of the composition to radiation having a wavelength of less than about 248 nm, thereby providing a photoresist with reduced linewidth variation.

20. (Currently Amended) A photoresist having micron or submicron linewidth variation when exposed to radiation having a wavelength of about 248 nm or less, comprising
a cycloolefin based polymer or copolymer, a photoacid generator and a base having a molar concentration in a range of about 0.2 to less than 1 relative to the photoacid generator.

21. (Currently Amended) The photoresist of claim 20, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.5 to ~~about~~ less than 1.

22. (Previously Presented) The photoresist of claim 20, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.4 to 0.6.

23. (Previously Presented) The photoresist of claim 20, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.5 to about 0.8.

24. (Original) The photoresist of claim 20, wherein the cycloolefin based polymer or copolymer is a cycloolefin-maleic anhydride copolymer.

25. (Currently Amended) A photoresist having micron or submicron linewidth variation when exposed to a wavelength of about 248 nm or less, comprising

a polymer or copolymer containing fluorinated alcohol substituted polycyclic ethylinically unsaturated monomeric unit, a photoacid generator and a base having a molar concentration ratio in a range of about 0.2 to about less than 1 relative to the photoacid generator.

26. (Currently Amended) The photoresist of claim 25, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.5 to about less than 1.

27. (Previously Presented) The photoresist of claim 25, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.4 to 0.6.

28. (Previously Presented) The photoresist of claim 25, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.5 to about 0.8.

29-49 (Canceled)

50. (Previously Presented) A photoresist having micron or submicron linewidth variation when exposed to radiation having a wavelength of about 248 nm or less, comprising

a polymer or copolymer containing a fluorinated alcohol substituted polycyclic ethylinically unsaturated monomeric unit, a photoacid generator having a concentration of at least 6 percent by weight and a base having a molar concentration ratio in a range of about 0.2 to 1.5 relative to the photoacid generator.

51. (Previously Presented) The photoresist of claim 50, wherein the photoacid generator has a concentration in a range of about 6 percent to about 50 percent by weight.

52. (Currently Amended) The photoresist of claim 18, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.5 to ~~about~~ less than 1.

53. (Previously Presented) The photoresist of claim 19, wherein said photoresist polymer comprises a polycyclic copolymer.

54. (Previously Presented) The photoresist of claim 19, wherein said photoresist polymer comprises a cycloolefin based polymer or copolymer.

55. (Previously Presented) The photoresist of claim 19, wherein said photoresist polymer contains fluorinated alcohol substituted polycyclic ethylinically unsaturated monomeric unit.

56. (Previously Presented) The photoresist of claim 18, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.4 to about 0.6.

57. (Previously Presented) The photoresist of claim 18, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.3 to about 0.8.

58. (Previously Presented) The photoresist of claim 20, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.3 to about 0.8.

59. (Previously Presented) The photoresist of claim 25, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.3 to about 0.8.

60. (New) The photoresist of claim 18, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.2 to about 0.9.

61. (New) The photoresist of claim 19, wherein the molar concentration ratio of the base relative to the photoacid generator is in a range of about 0.2 to less than 1.